THE AUTOMOTIVE EDGE™

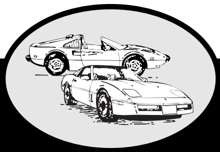
The Official Publication of the
NATIONAL LOCKSMITH
AUTOMOBILE ASSOCIATION™

09.04

2004 Chevrolet Malibu Classic

by Bob Sieveking

1. *The Chevrolet Malibu Classic body for 2004 is a holdover from the previous Malibu model year, manufactured most specifically for the rental and fleet market. It is a mid-size 4-door sedan. There are four lock cylinders on this vehicle. Lock cylinders are found in the driver and passenger doors, trunk and ignition.*

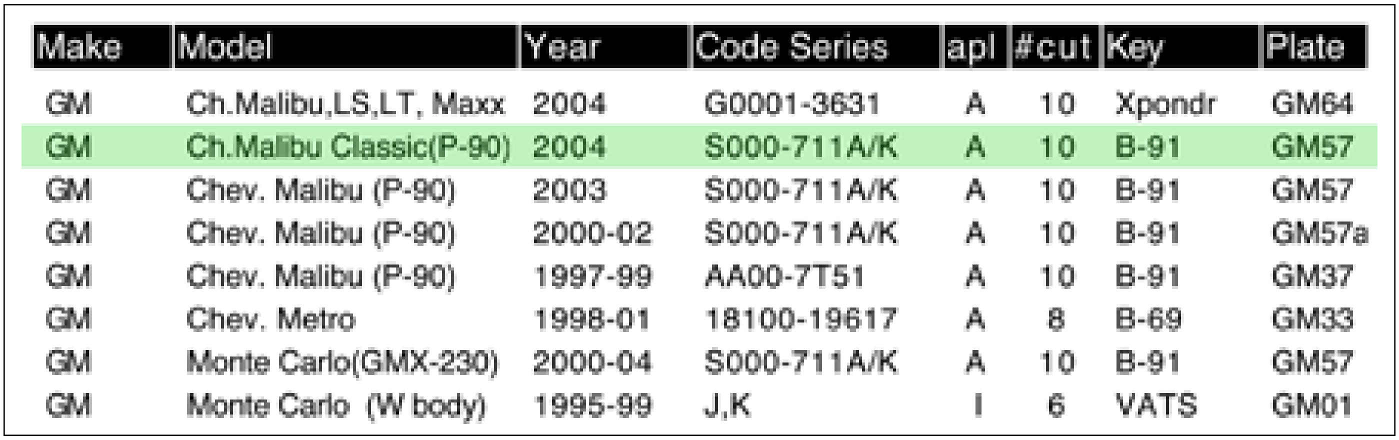


Issue
No.55

Here are the two best websites for Automotive Locksmiths:

www.TheNationalLocksmith.com
Chat, Forums, Editorial,
Online Store, Tech Support

www.Laserkey.com
Product & Technology Sales,
Transponder Information Resources



Make	Model	Year	Code Series	apl	#cut	Key	Plate
GM	Ch.Malibu,LS,LT, Maxx	2004	G0001-3631	A	10	Xpondr	GM64
GM	Ch.Malibu Classic(P-90)	2004	S000-711A/K	A	10	B-91	GM57
GM	Chev. Malibu (P-90)	2003	S000-711A/K	A	10	B-91	GM57
GM	Chev. Malibu (P-90)	2000-02	S000-711A/K	A	10	B-91	GM57a
GM	Chev. Malibu (P-90)	1997-99	AA00-7T51	A	10	B-91	GM37
GM	Chev. Metro	1998-01	18100-19617	A	8	B-69	GM33
GM	Monte Carlo(GMX-230)	2000-04	S000-711A/K	A	10	B-91	GM57
GM	Monte Carlo (W body)	1995-99	J,K	I	6	VATS	GM01

2. The first step in any key making or service request is to locate information on the vehicle to be serviced. The Fast Facts index shows the 2004 Ch. Malibu (P-90 body). This is essentially the same body that has been in production since 1997. The code series is S000-711A/K. One key fits all of the locks. The vehicle uses the 10-wafer lock system and requires the (Curtis #) B-91 key blank. Further information will be found on "Key Plate" GM57.

National Locksmith Automobile Association™

Publisher
Marc Goldberg

Director
Greg Mango

Printed in the U.S.A.
NLAA, a division of the National Publishing Company
Publishers of
THE NATIONAL LOCKSMITH

1533 Burgundy Parkway
Streamwood, Illinois 60107
Phone 630-837-2044
Fax 630-837-1210

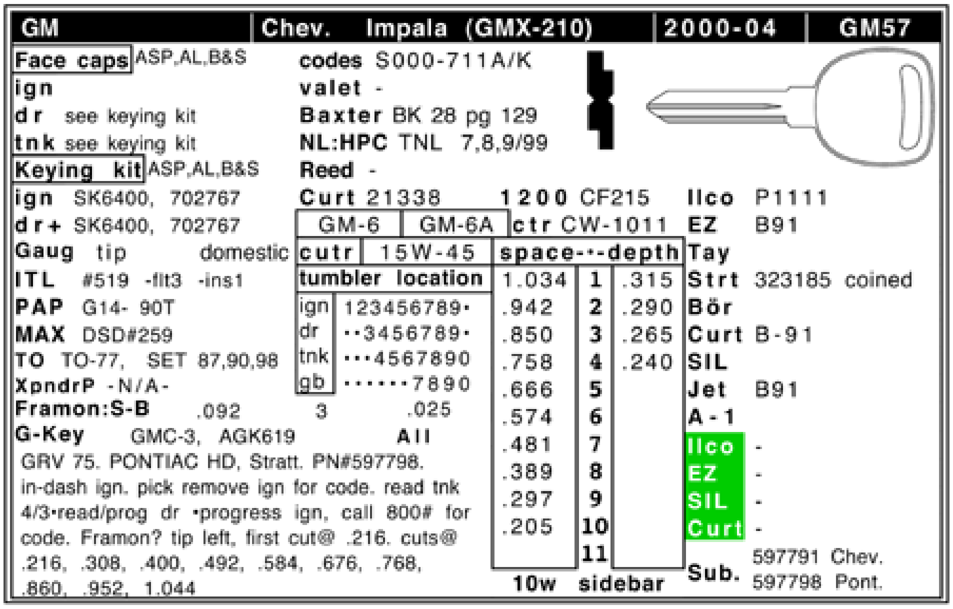
E-mail address:
natllock@aol.com

Unsolicited manuscripts are accepted, but must include SASE.

©2004 National Publishing Co.
All rights reserved.

Issue No. 55

Manufacturers: Interested in offering rebates or discounts to NLAA members? Contact Marc Goldberg at the Home Office



GM | **Chev. Impala (GMX-210)** | **2000-04** | **GM57**

Face caps ASP,AL,B&S
ign
dr see keying kit
tnk see keying kit
Keying kit ASP,AL,B&S
ign SK6400, 702767
dr+ SK6400, 702767
Gaug tip domestic
ITL #519 -flt3 -ins1
PAP G14- 90T
MAX DSD#259
TO TO-77, SET 87,90,98
XpndrP -N/A-
Framon:S-B .092 3 .025
G-Key GMC-3, AGK619 **All**
GRV 75. PONTIAC HD, Stratt. PN#597798. in-dash ign. pick remove ign for code. read tnk 4/3•read/prog dr •progress ign, call 800# for code. Framon? tip left, first cut@ .216. cuts@ .216, .308, .400, .492, .584, .676, .768, .860, .952, 1.044

codes S000-711A/K
valet -
Baxter BK 28 pg 129
NL:HPC TNL 7,8,9/99
Reed -
Curt 21338 **1200** CF215
GM-6 | GM-6A **ctr** CW-1011
cutr 15W-45

tumbler location	
ign	123456789•
dr	••3456789•
tnk	•••4567890
gb	••••••7890

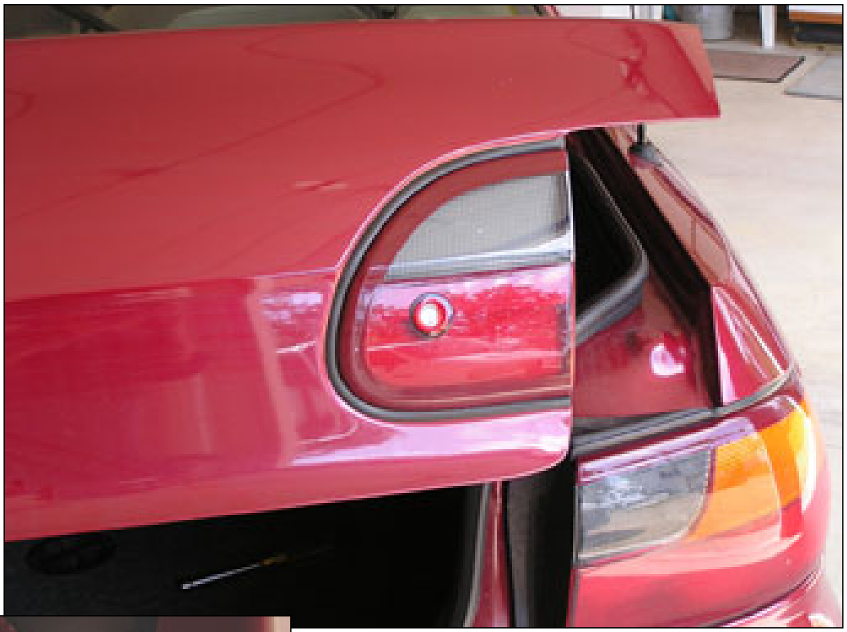
space-•-depth		
1.034	**1**	.315
.942	**2**	.290
.850	**3**	.265
.758	**4**	.240
.666	**5**	
.574	**6**	
.481	**7**	
.389	**8**	
.297	**9**	
.205	**10**	
	11	

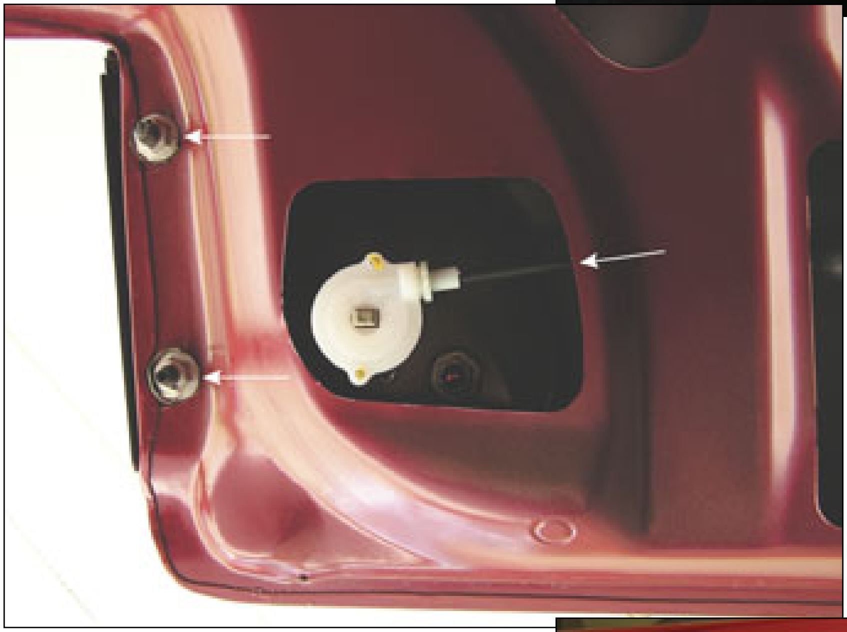
10w sidebar

Ilco P1111
EZ B91
Tay
Strt 323185 coined
Bör
Curt B-91
SIL
Jet B91
A-1
Ilco -
EZ -
SIL -
Curt -
Sub. 597791 Chev.
597798 Pont.

3. Key Plate GM57 gives all of the information necessary to make a mechanical key for this vehicle. This vehicle uses the same lock configuration as the 2000–04 Chevrolet Impala (GMX-210).

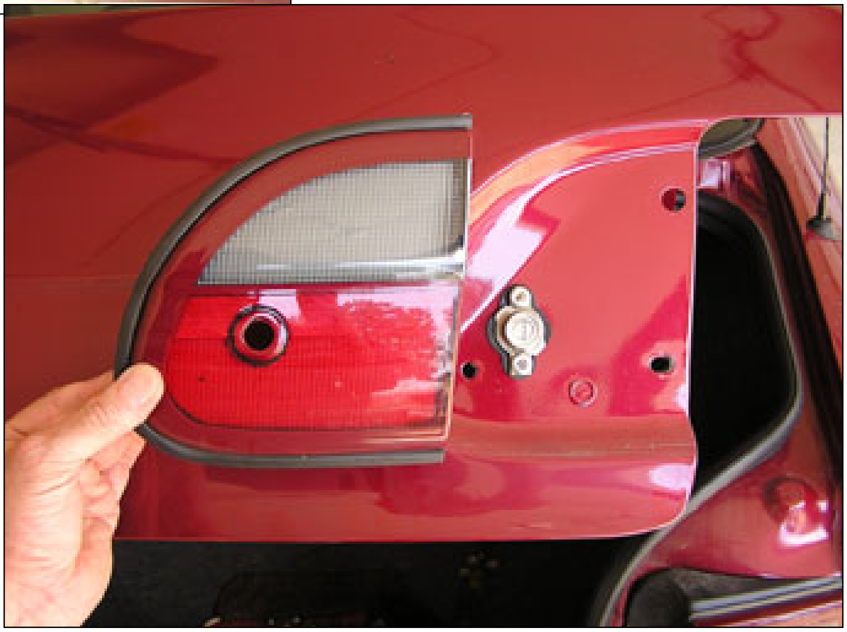
4. The trunk cylinder is located behind the left rear reflector panel. The Reflector must be removed to access the cylinder.

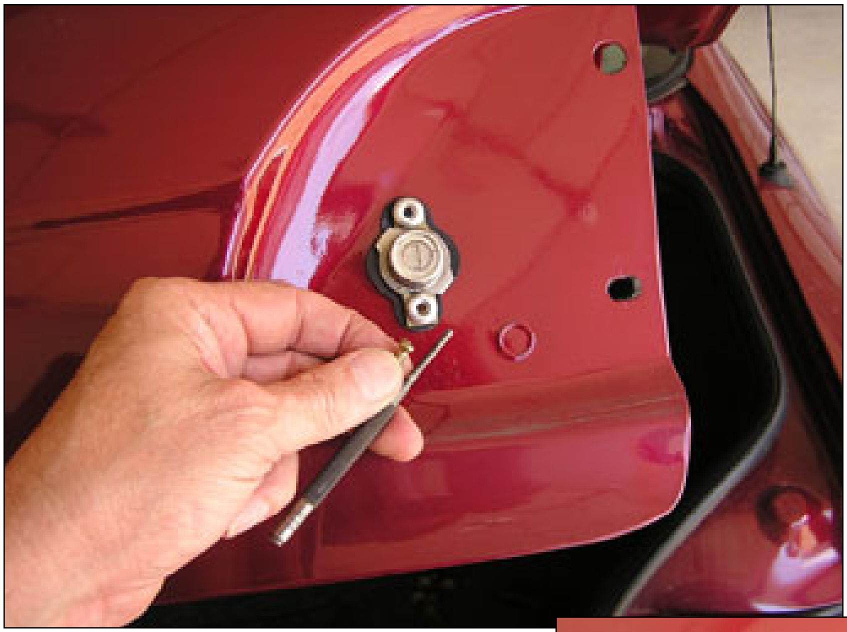




5. With the trunk lid open, we can see the rear of the lock cylinder trunk release cable attachment and three 13mm sheet metal "Pal Nuts." Remove the Pal Nuts carefully, so as not to break the plastic posts which they thread onto. Use a 13mm deep socket.

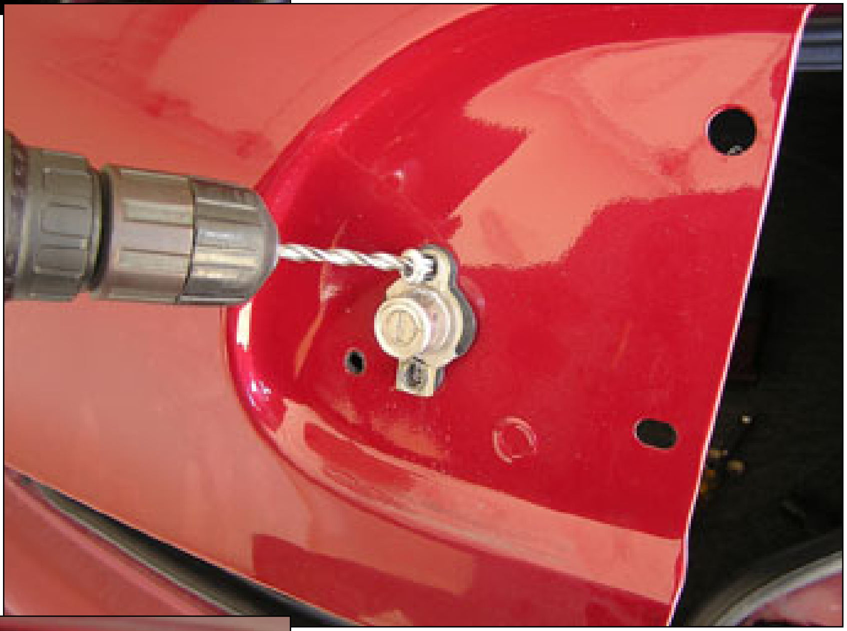
6. The reflector panel can then be lifted away from the trunk lid, to reveal the trunk cylinder. The lock cylinder is attached to the deck lid by two 1/4" banana rivets.

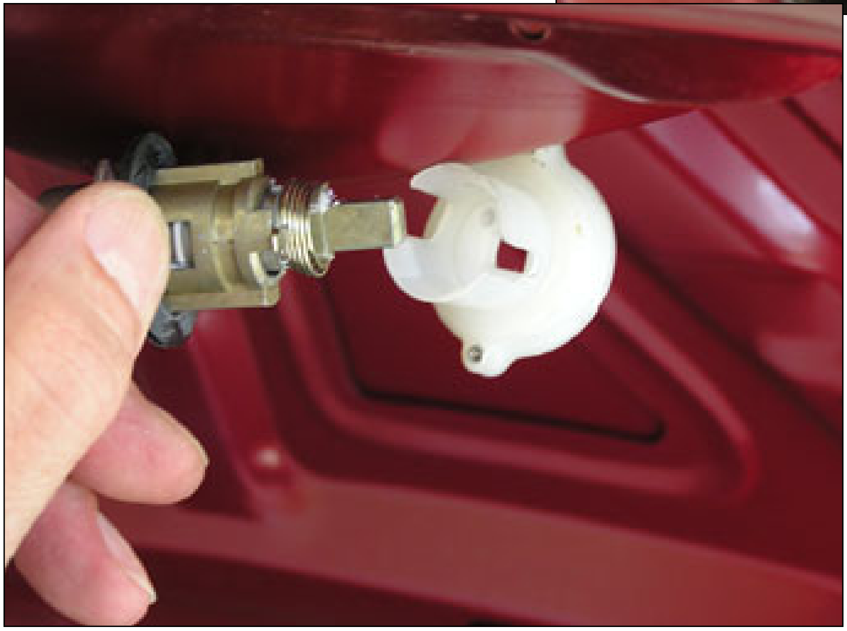




7. Use a 1/8" pin punch to drive the steel rivet spreader mandrel out the rear of the rivet. This will leave a hollow rivet body.

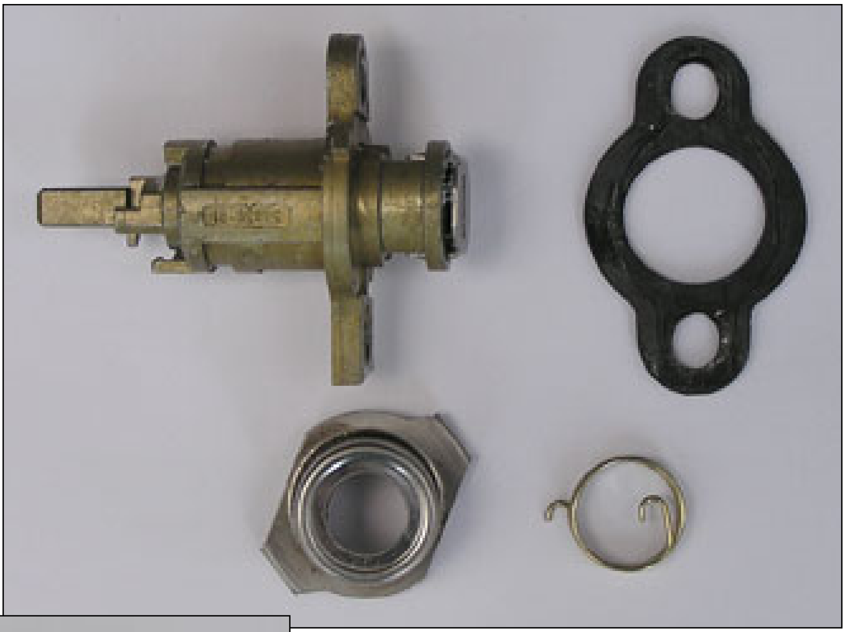
8. Drill through the rivet body with a 15/64" bit. Drill slowly, so as not to spin the rivet. Tilt the drill to one side, at the very top of the rivet, and the head will pop off. This method will prevent drill damage to the trunk lid.

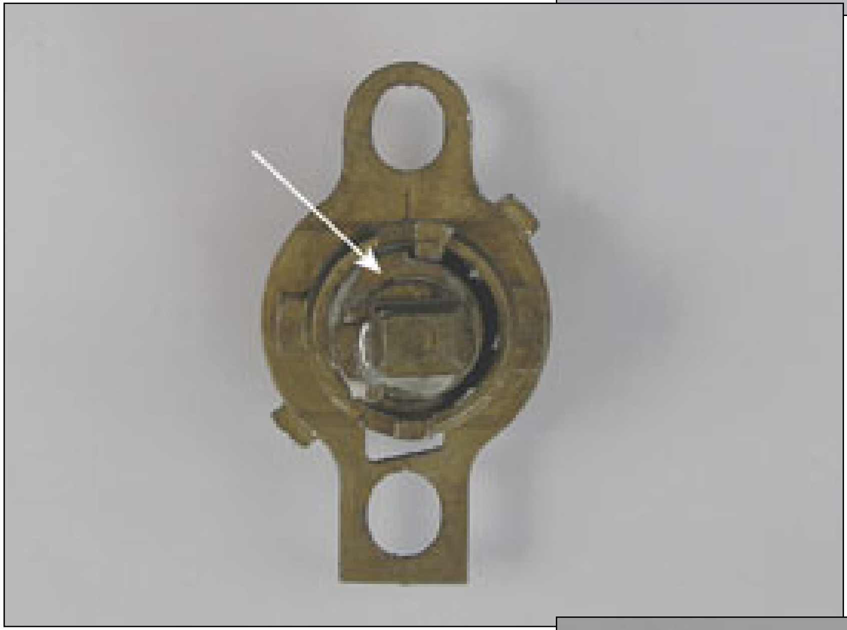




9. Carefully unsnap the trunk release cable fixture from the rear of the trunk lock. Use a small screwdriver to spread the plastic fixture. The cylinder can then be removed from the deck lid.

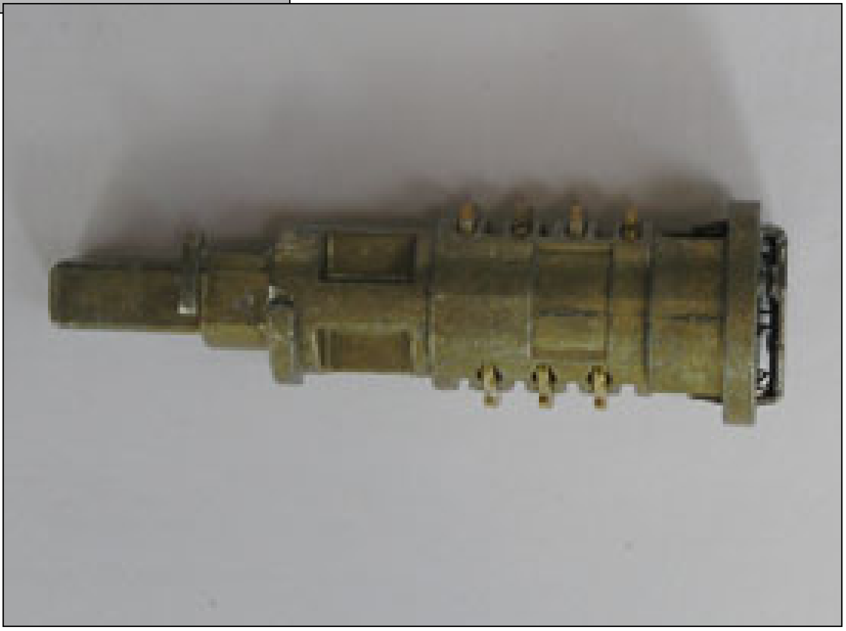
10. Disassemble the trunk cylinder. Use a small straight screwdriver to pry up the tabs on the trunk cylinder cap. The cylinder cap is reusable. Remove the return spring and gasket.

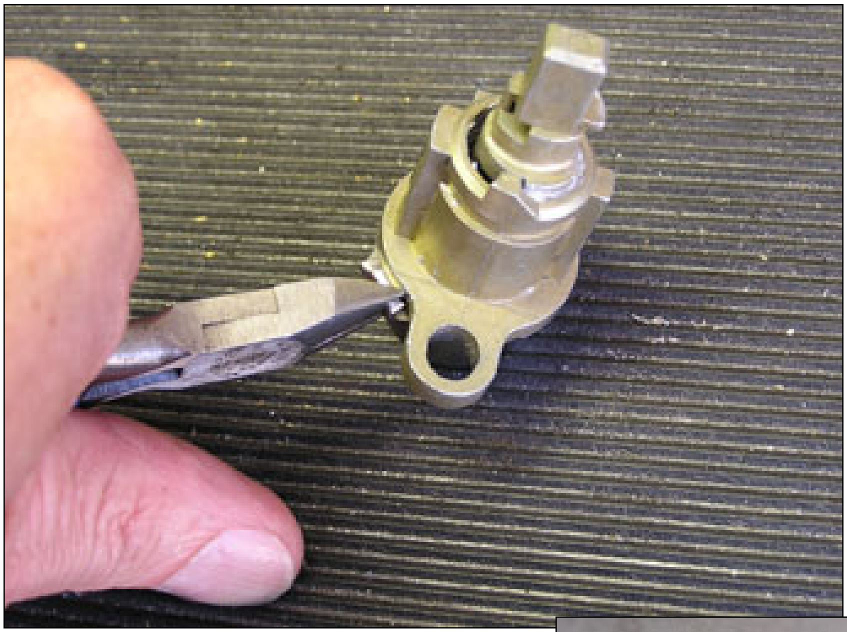




11. The trunk cylinder plug is retained in the cylinder by the stop tab at the rear of the plug. Pick the cylinder or use a key to rotate the plug right 180. The plug will then be free to slide out the front of the cylinder.

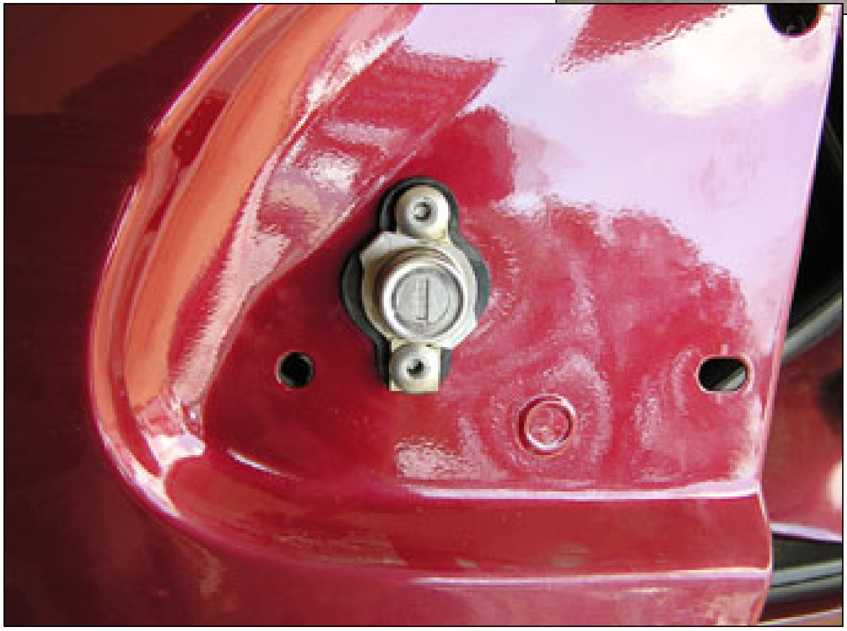
12. The trunk cylinder contains seven wafers, in positions 4–10. The wafers are arranged in an alternating true double-sided configuration.



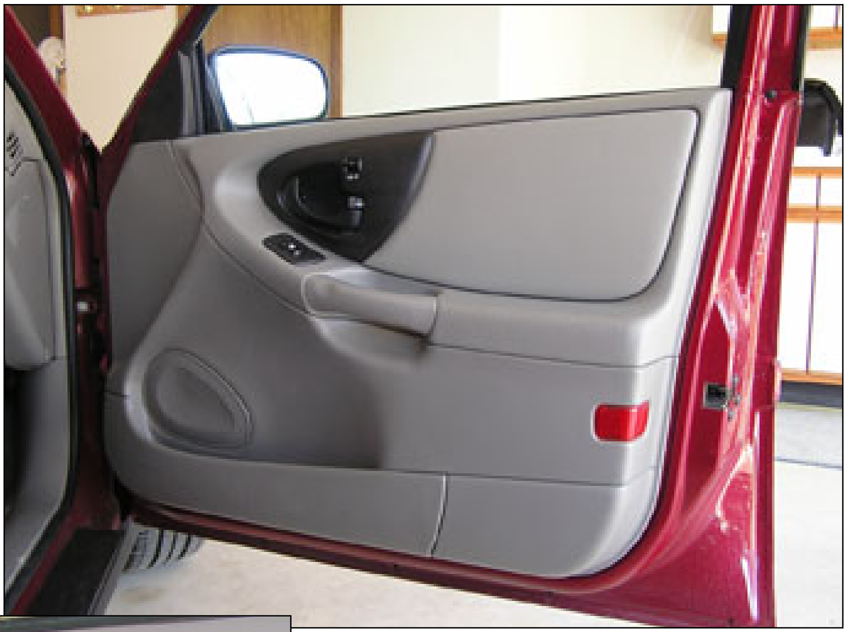


13. As you reassemble the trunk cylinder, crimp the retaining tabs of the cylinder cap with a pair of diagonal cutters, to tighten the cap over the cylinder tabs.

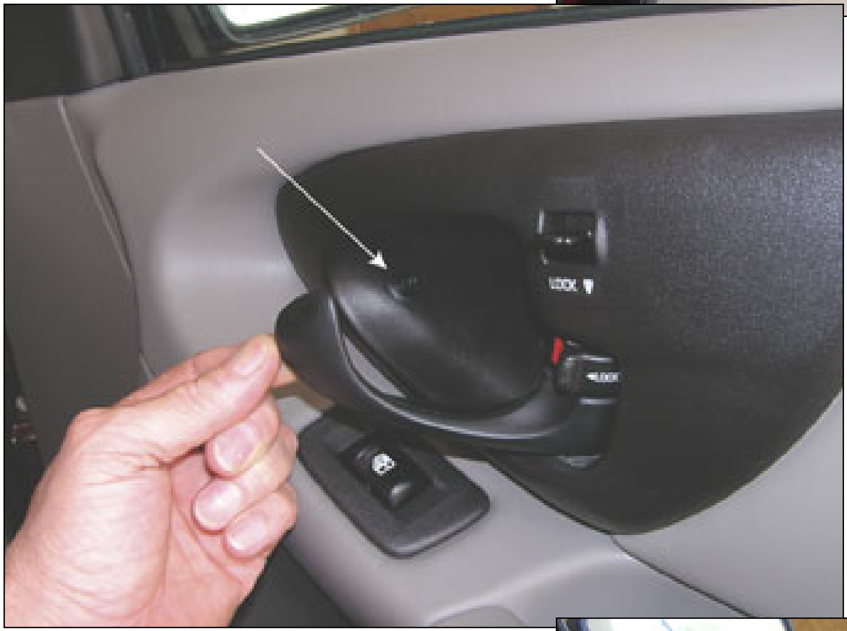
14. To fix the cylinder to the trunk lid, you will need a pop riveter capable of expanding 1/4" rivets. Aluminum rivets are used, because they will not rust. Two rivets will be required to attach the trunk cylinder.



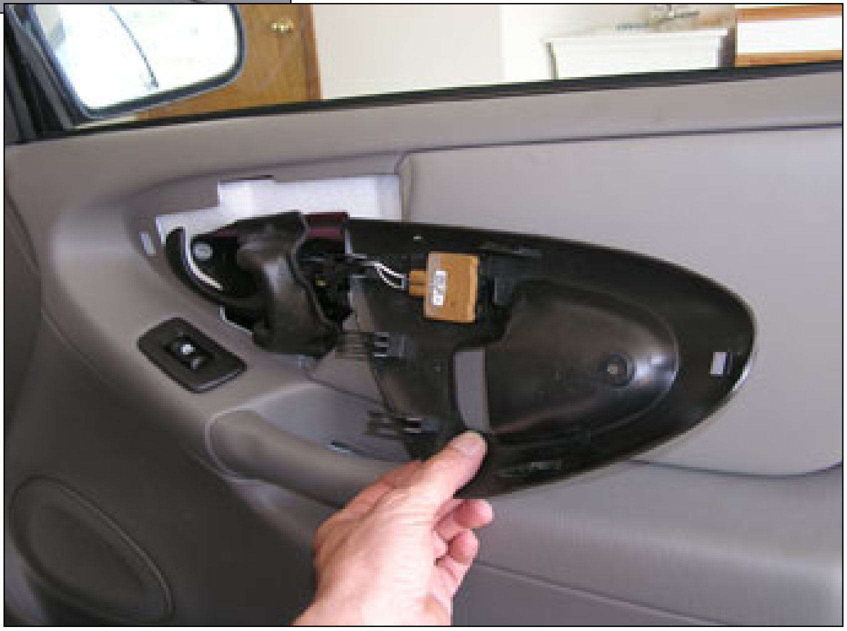
15. The pop rivets should squeeze the rubber gasket tightly against the trunk lid, to make a watertight seal. Snap the trunk release cable fixture over the rear of the cylinder and reattach the reflector to complete the trunk cylinder service.



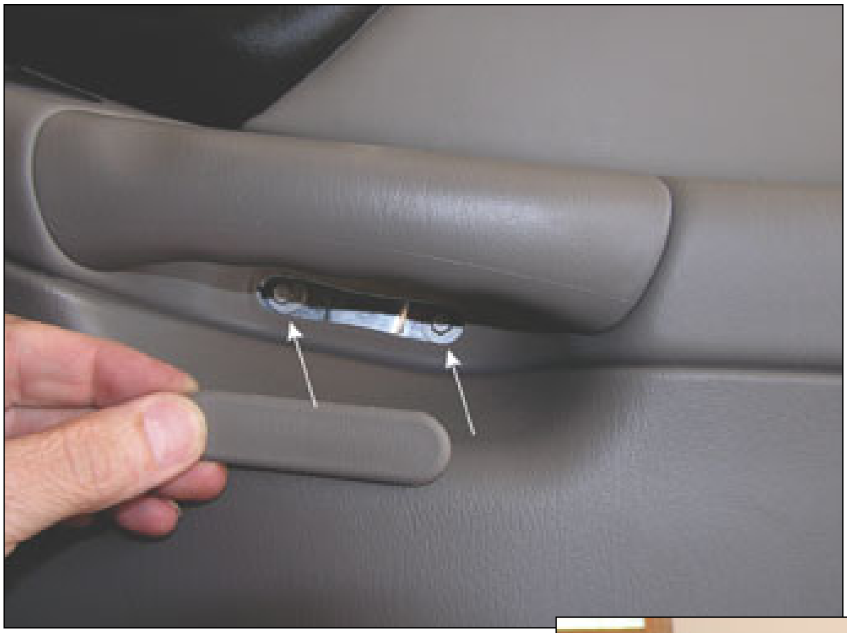
16. The Chevrolet Malibu door panel has a clean appearance. There are no visible trim pad fasteners.



17. A black Phillips head screw will be found under the door release handle. Remove the Phillips screw and slide the Black trim piece rearward and lift the front edge, to unlatch the front of the trim piece.

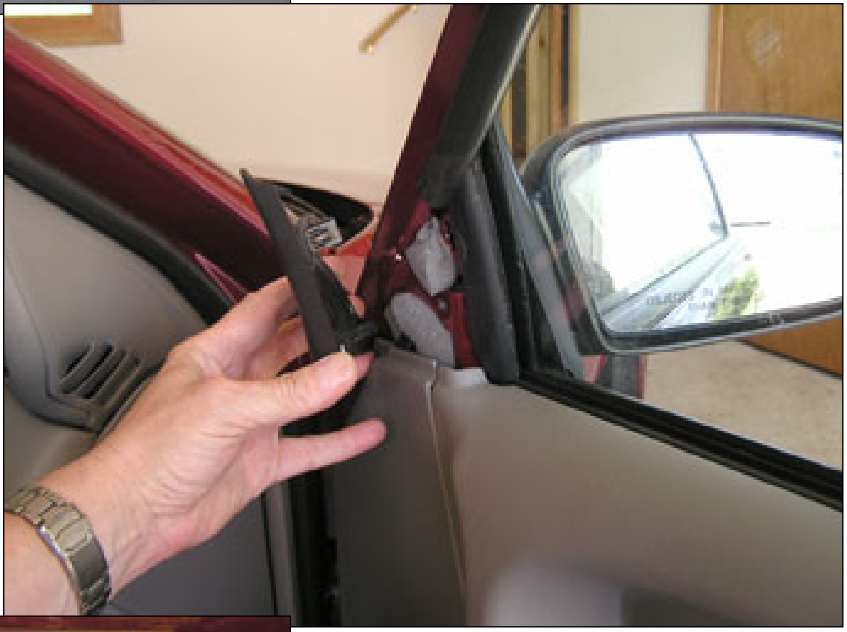


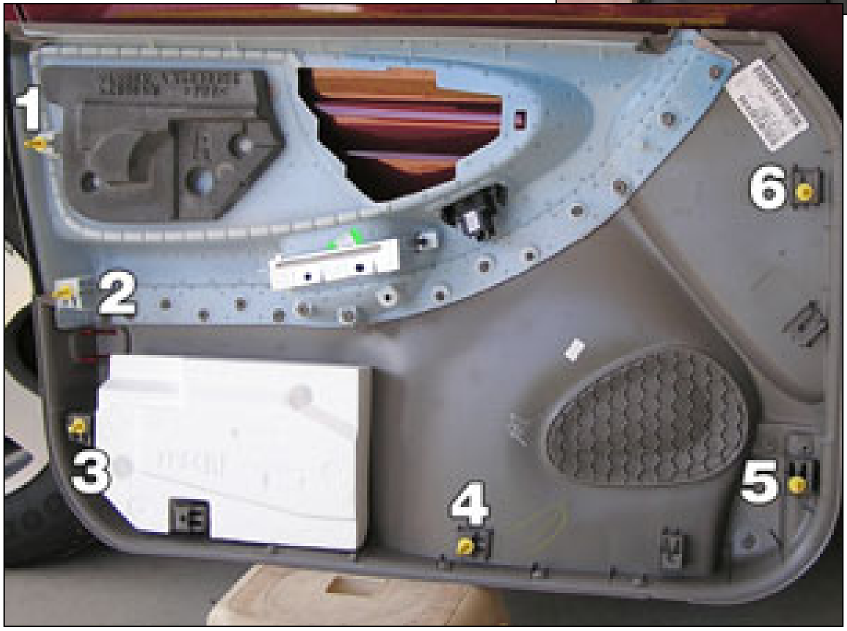
18. After unlatching the front of the trim piece, slide the Trim panel forward to disengage the rear hooks. Slide the trim piece further forward over the door release handle. Unlatch and remove the electric lock control wire plug from the switch.



19. A small oval cover, located under the arm rest pull handle can be removed to reveal two 7mm (7/32") hex head screws. Use a nut driver to remove the screws.

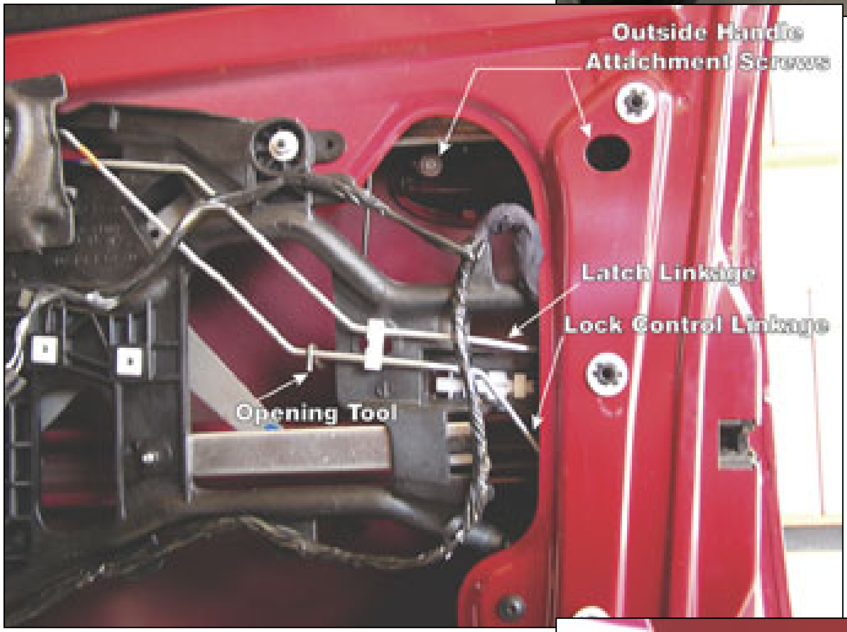
20. A triangular black plastic trim piece at the front top corner of the door panel must be removed. It is held by one friction clip at the top corner. Pry the top out, and it will detach from the door.





21. The door trim panel is held in place by six yellow plastic panel fasteners. Use a flat trim bar to lift the panel at the location of each fastener, to avoid breaking the panel or fasteners. Lift the panel upward to unlatch the top lip of the trim panel from the rubber window seal. Carefully unlatch and disconnect the electric window control switch wire plug, to separate the trim panel.

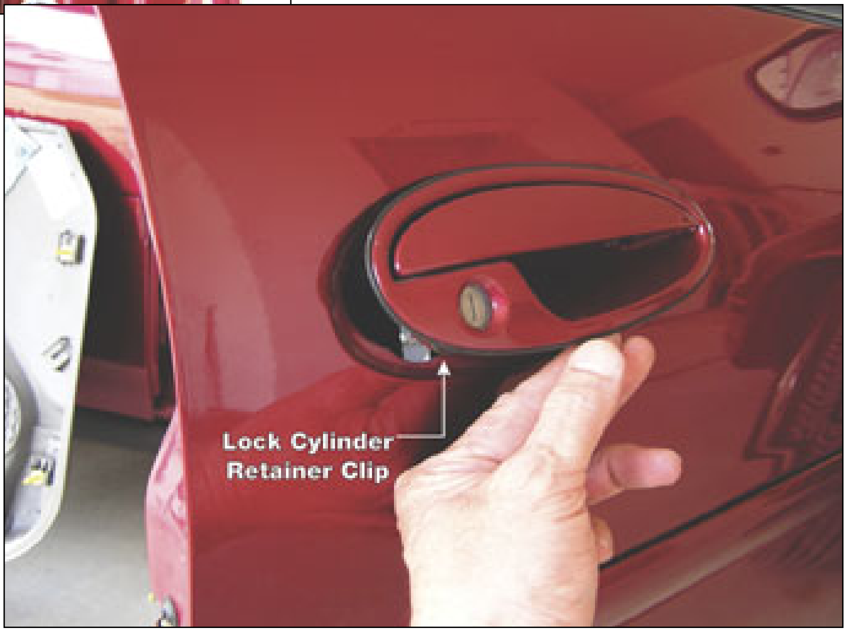
22. The moisture barrier/door silencer panel is a formed plastic wool material. It is adhered to the metal door structure by a white elastic adhesive. Carefully pull the silencer panel away from the door.

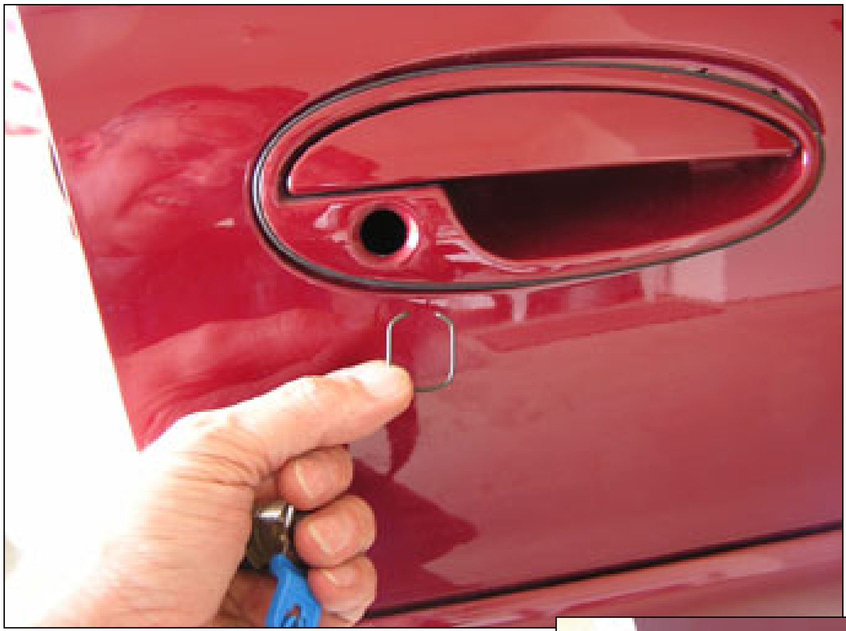


23. To open this vehicle, wedge the door about fourteen inches from the rear edge of the glass. Use a deep down hook, to engage the bottom linkage. Move the linkage toward the front of the car to unlock. (Tool shown is a Z-Tool, using the long end, but any down hook tool will work)

Inside the door, you will see the two 10mm hex head screws, which secure the outside lift handle. Remove the Two hex head screws to loose the lift handle.

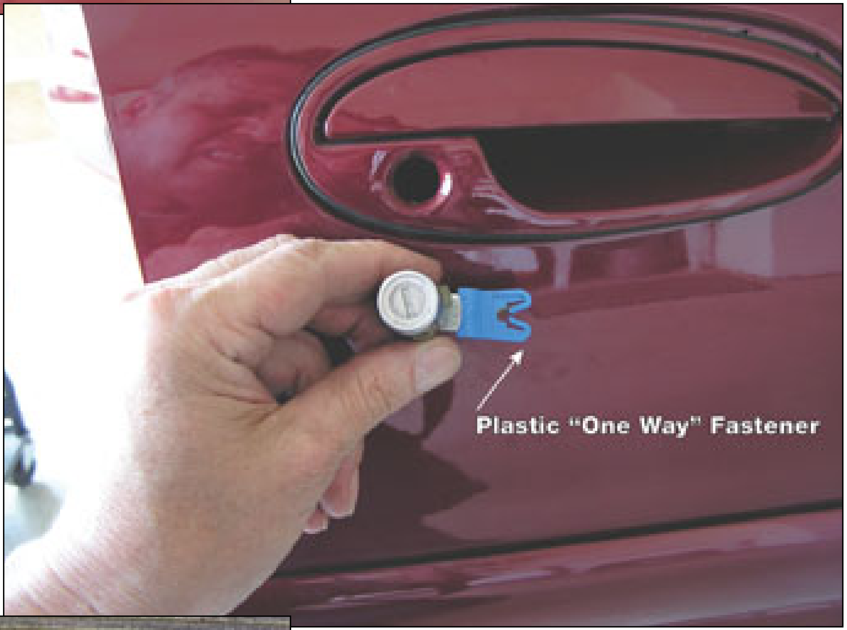
24. Lift the door release handle to view the lock cylinder retaining clip. Use a small screwdriver to pull downward on the clip, as you push the cylinder inward. The cylinder will unlatch and slide into the door.

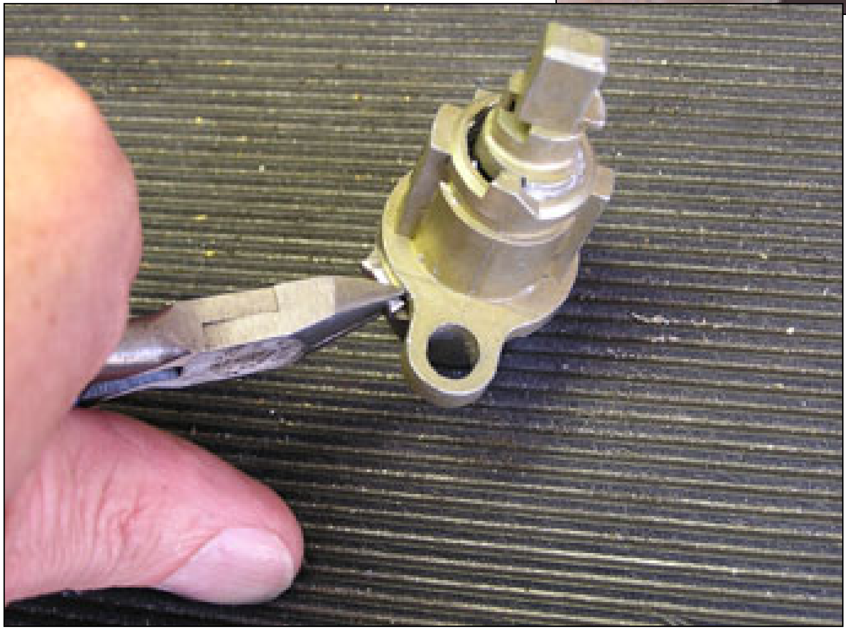




25. It is not necessary to remove the retaining clip, but here you see the shape of the clip. If the clip is pried downward, it will expand enough to release the cylinder without removal.

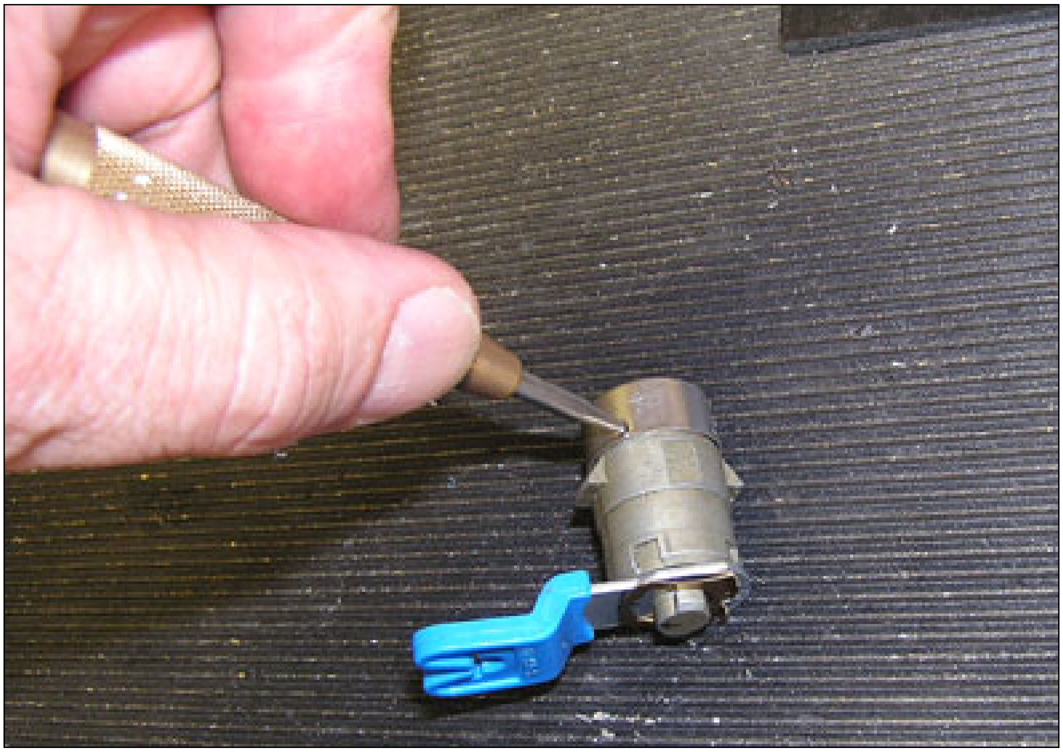
26. Pivot the door cylinder inside the door to slide it off the end of the lock linkage. As you see in the photo, the lock pawl has a "one-way" fastener for the rod linkage. If you pry it off the linkage, you will break the plastic fastener.





27. The door cylinder uses a reusable easy off cap. Pry up the edges of the cap to slip it off of the lock cylinder. Mark the tailpiece for reassembly and remove the tailpiece to disassemble the plug from the lock cylinder case. The door cylinder contains wafers in positions 3–9. The wafers are arranged in an alternating true double-sided configuration.

28. When replacing the easy off cylinder cap, you may need to tighten the cap onto the lock cylinder. Use an automatic center punch to stake the cap in place, at the factory indicated stake points.



$5.00 Off Power Wedge (PW-100)

Rebate code: 04HNS08

The HPC Power Wedge™ (PW-100) is a revolutionary auto entry device designed to aid in opening even the most difficult vehicles! The Power Wedge™ is a spring loaded compound lever that safely spreads a vehicle door away from the body, allowing for the easy entry of a "Through the Car" opening tool. The Power Wedge™ slides into the opening between the vehicle's door and frame at the top of the door. The rubber-coated ends protect the vehicle from scratches and the adjustment knob allows you to control how wide you need the door to open. Simply turn the knob clockwise and watch as the door slowly opens giving you room to use a car opening tool to open the vehicle safely from the inside.

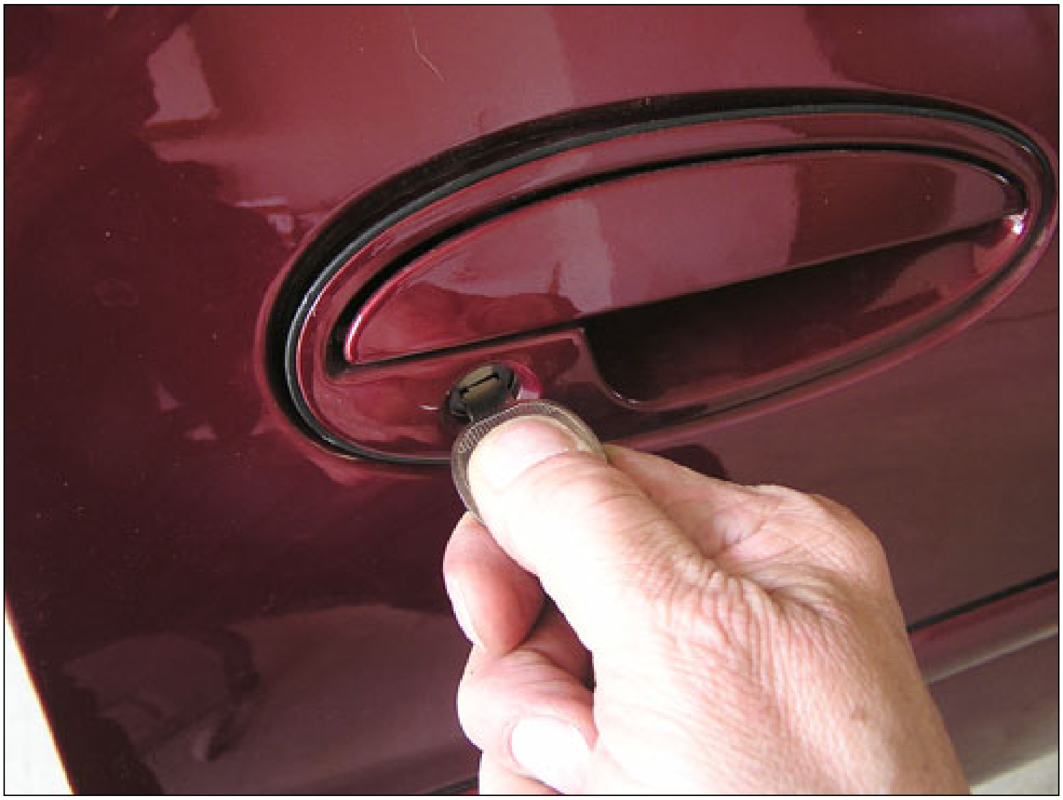
To receive your HPC, Inc. rebate, simply fill out the form below and mail it along with a copy of your invoice to:

HPC, Inc.
Attn: Rebate Department
PO Box 2093
Schiller Park, IL 60176 USA

Company ____________________
Name ____________________
Title ____________________
Address ____________________
City ____________________
Sate and Zip ____________________
Country ____________________
E-mail ____________________
Phone ____________________
Fax ____________________
Product Name ____________________
Rebate code ____________________

Official Rules:

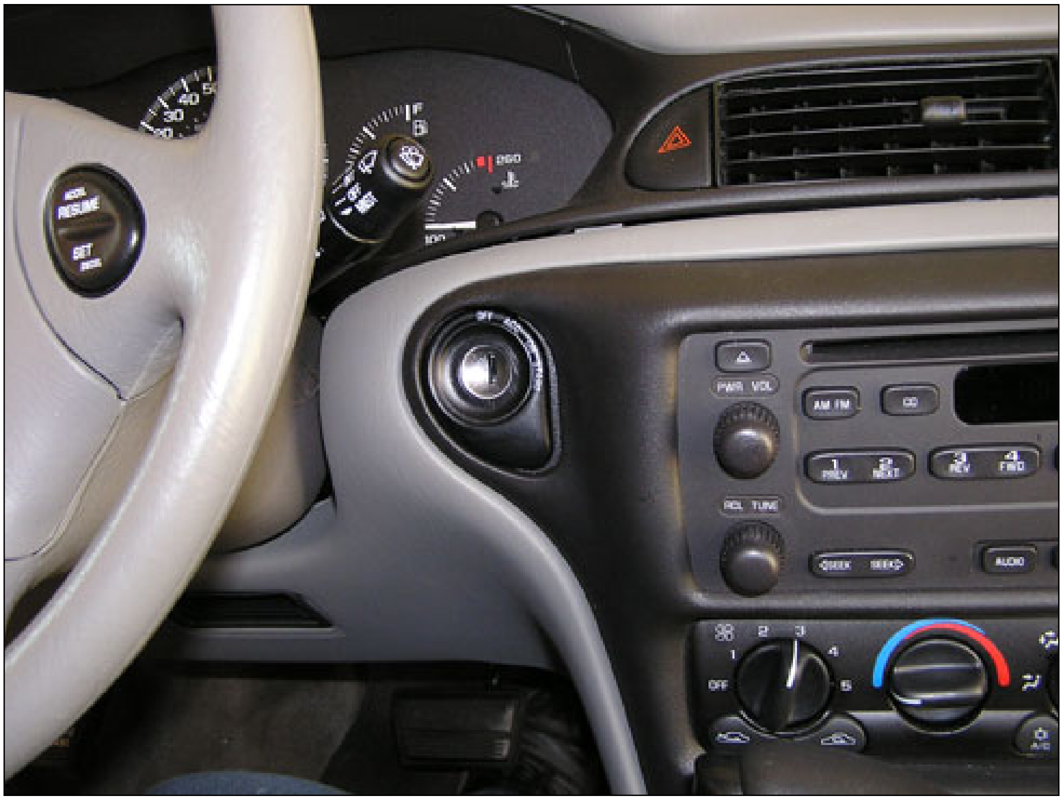
- Offer valid only for Security Professionals making qualified purchases through an authorized HPC Distributor between August 2, 2004 and August 31, 2004.
- This offer is mutually exclusive and cannot be used with any other offer.
- To receive free merchandise you must purchase the exact product shown.
- Paperwork must be clearly stated, “Rebate Department”.
- To qualify, all paperwork (copy of your invoice and a copy of your NLAA card) must be received at HPC, Inc. on or before September 30, 2004 by mail or fax.
- Please allow 4 to 6 weeks for processing.

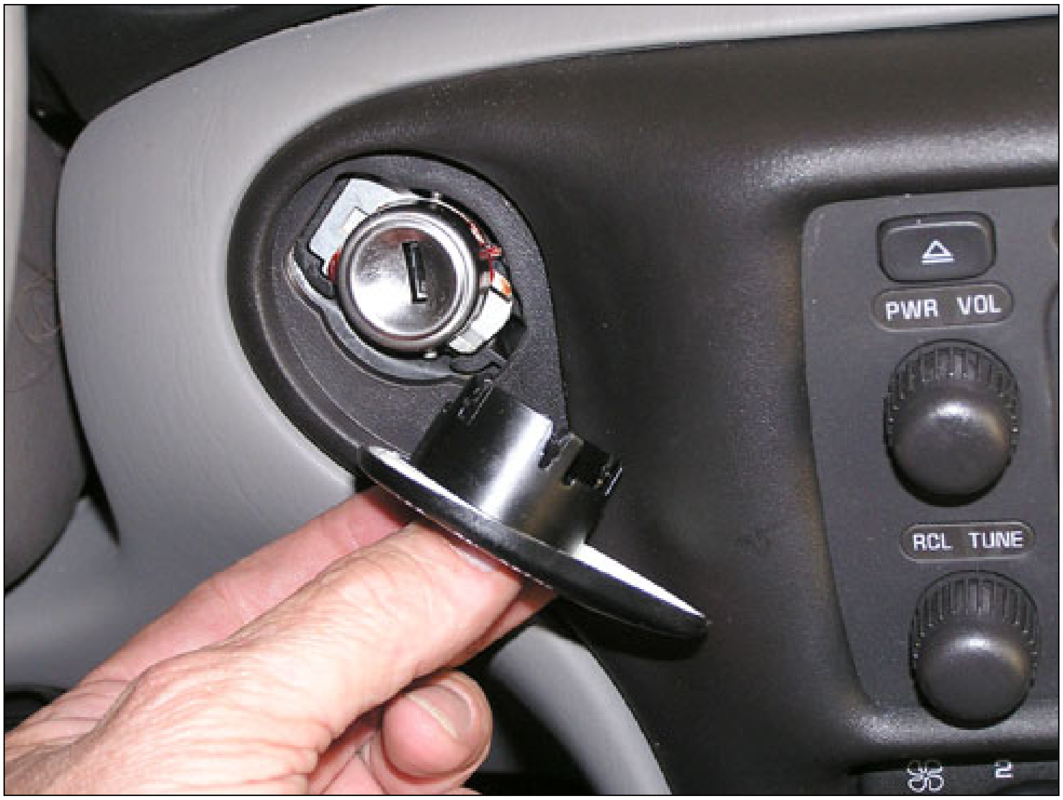


29. Install the cylinder into the rear of the handle housing. Insert a working key into the cylinder and rotate the key to prevent the key from pulling out. Pull on the head of the key to draw it into the housing and latch it in place. You should hear the retainer clip latch onto the lock cylinder. Reconnect the lock linkage and secure the lift handle assembly in place with the 10mm hex screws removed during disassembly. Check the door and lock cylinder for proper operation before replacing the inside trim. Replace the inside trim to complete the service.

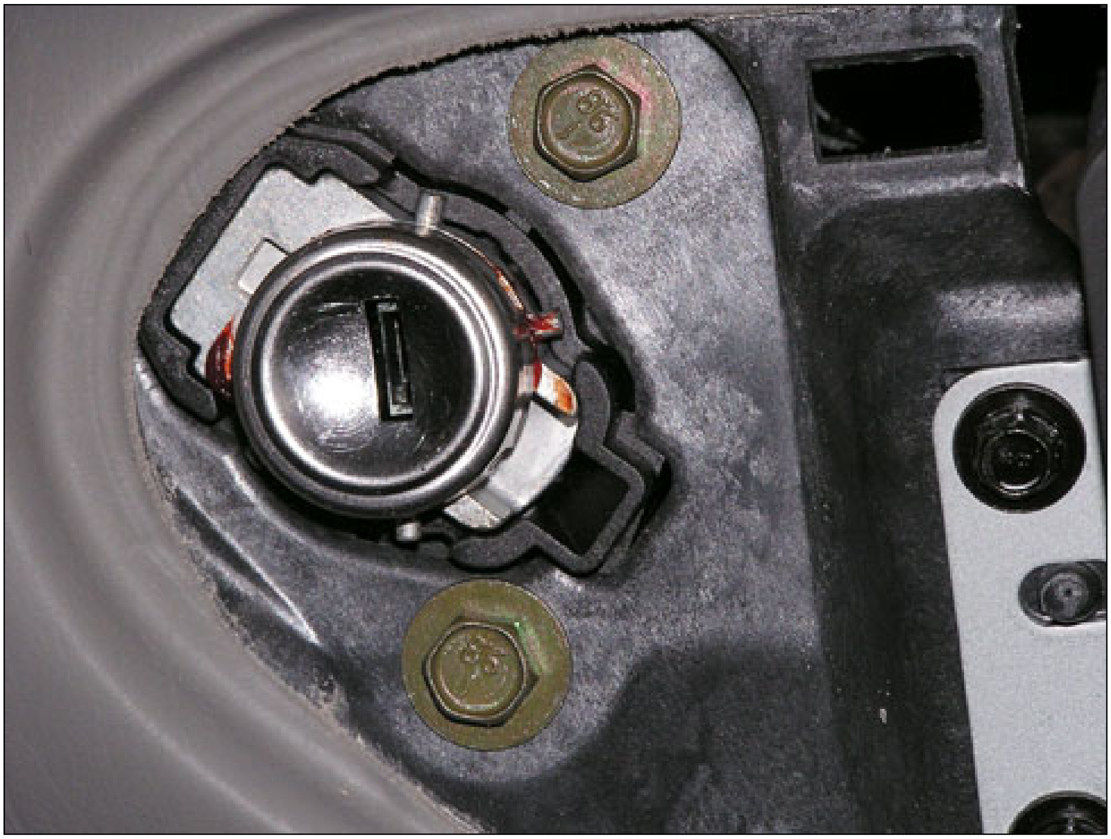
30. The 2004 Chevrolet Malibu Classic does not have a locking glove box. It may be an option, but I have not seen it. A 10 wafer GM Glove box cylinder would normally contain wafers in positions 7–10.

31. The Chevrolet Malibu Classic uses an in dash ignition. The ignition is surrounded by an oval black plastic bezel. To remove the bezel, lift the plastic radio trim piece carefully. The ignition bezel will be forced forward and unlatch from the face of the ignition housing.

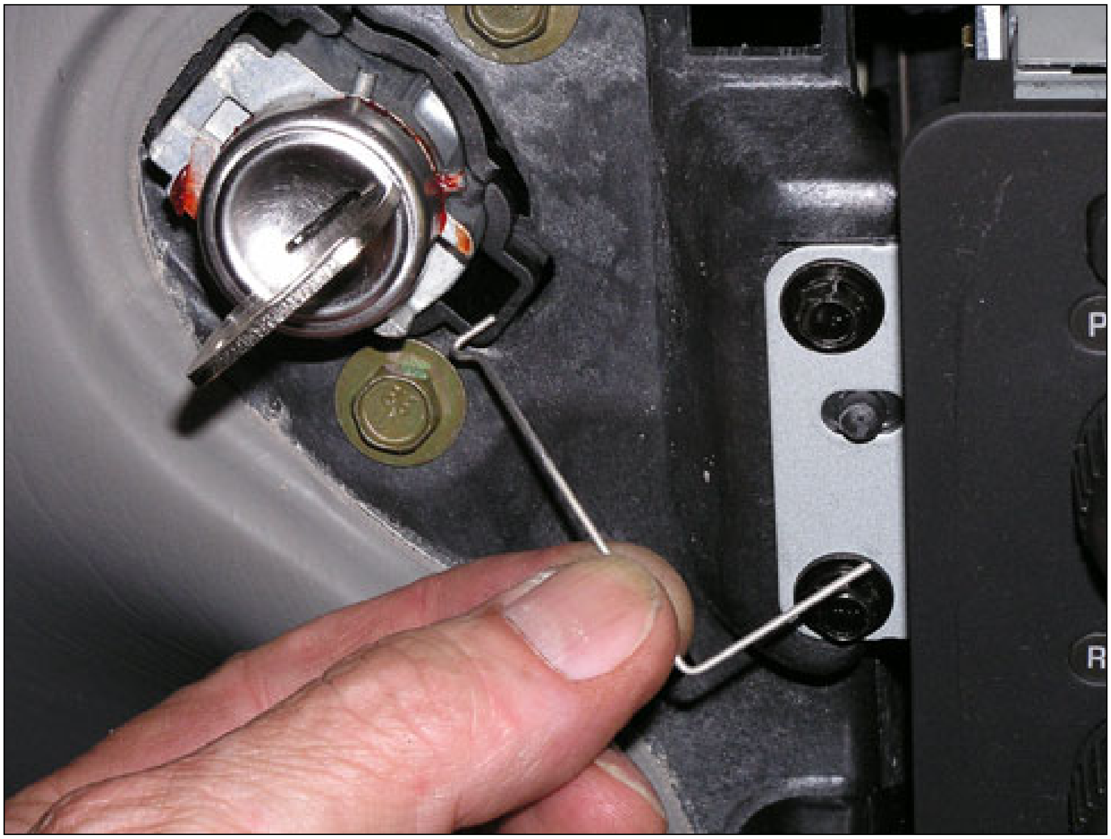




32. The black plastic lock bezel is retained by plastic fingers. The fingers engage four posts on the face of the ignition housing.

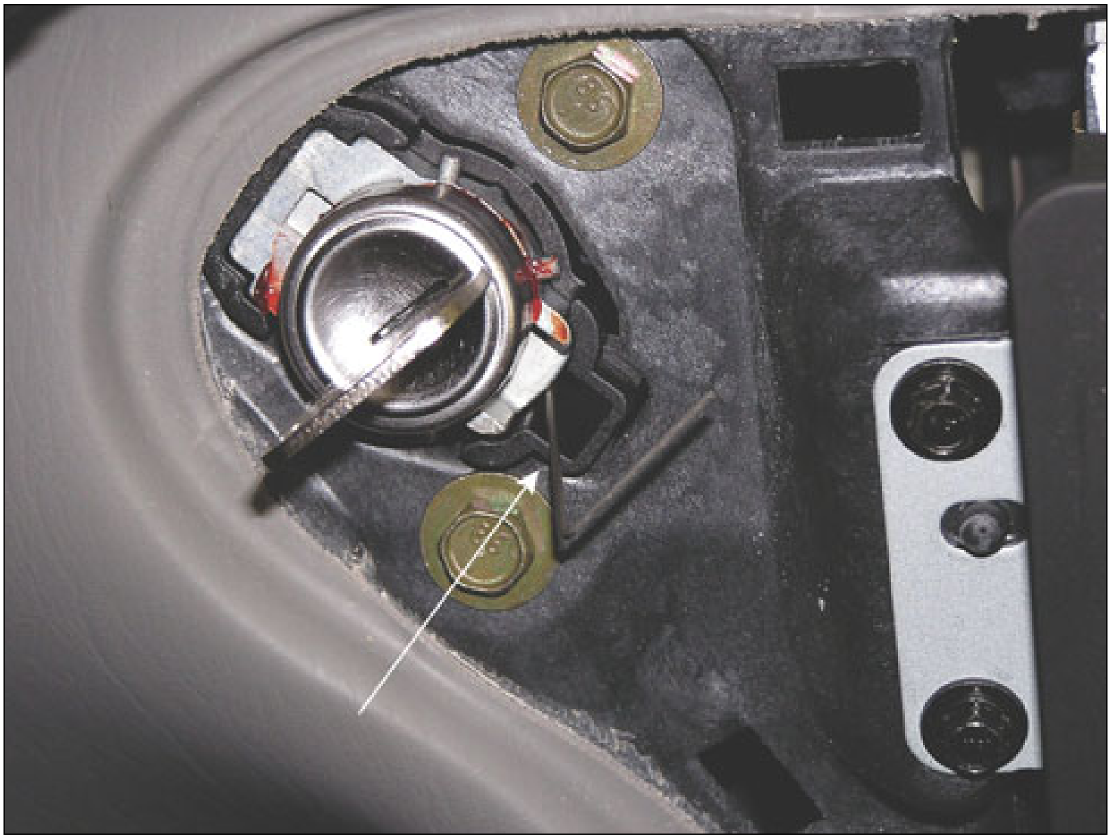


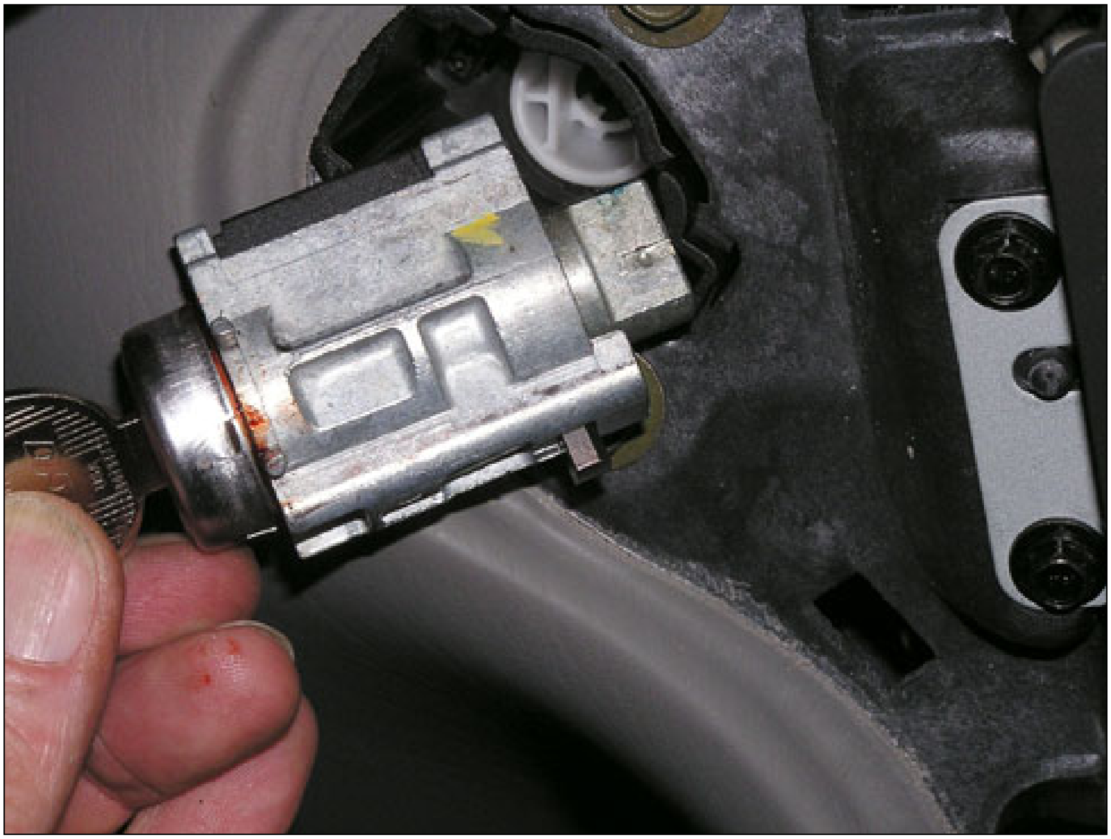
33. A detail of the ignition, before removal shows the four bezel retaining posts. At the lower right side of the ignition, you see the plastic ramp for the cylinder retainer spring lug.



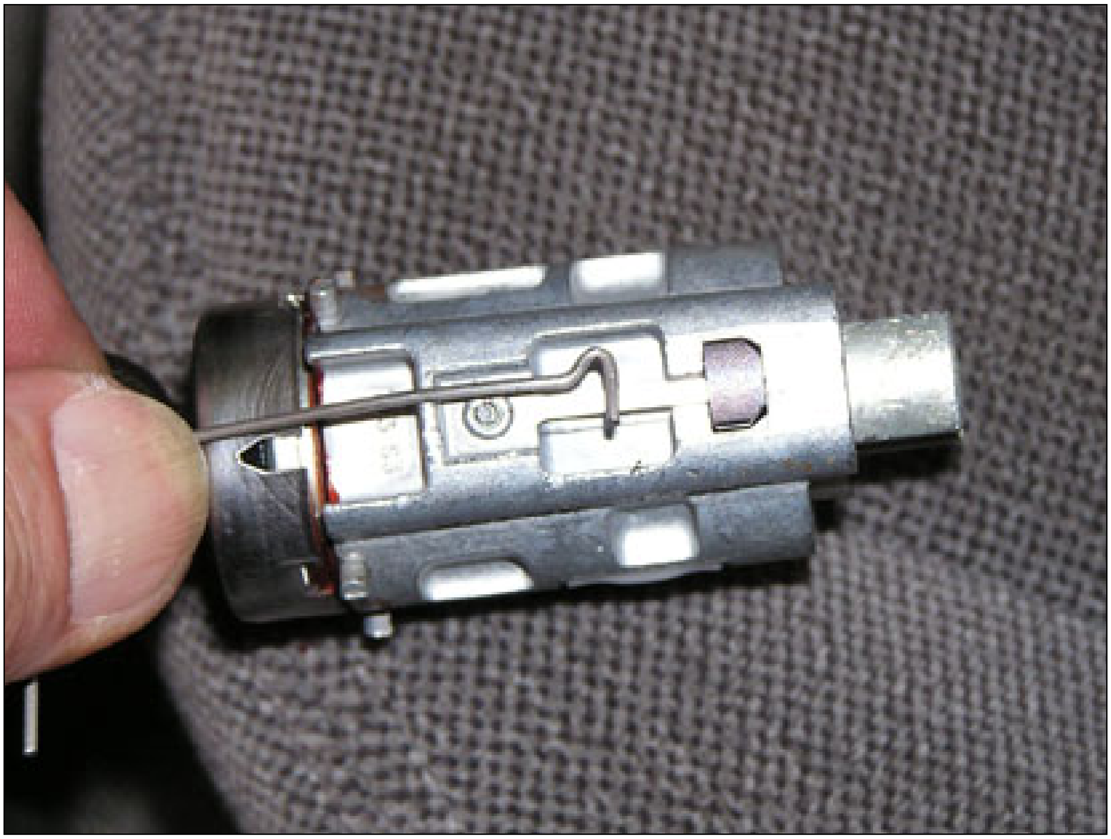
34. The ignition uses an active retainer. The ignition must be rotated clockwise 90° to the "ON/RUN" position for removal. In this position, the cylinder retainer can be depressed to extract the ignition cylinder assembly. The tool shown is part of the A-1 in-dash ignition kit. Note the shape of the tool. A stiff straight pick could also be used for this extraction.

35. Insert the cylinder retainer depressor tool at the bottom of the ignition cylinder as shown. The lock cylinder is retained in a plastic housing, which will easily allow the tool to be forced between the ignition and housing.

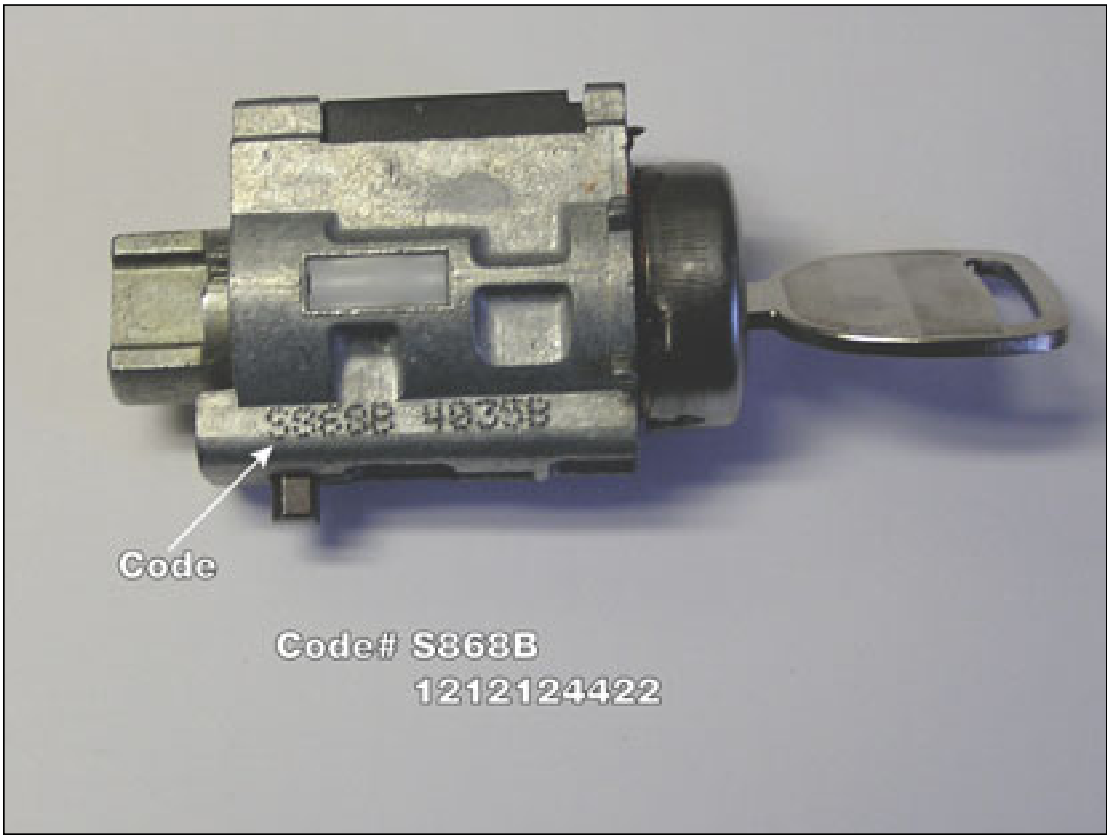




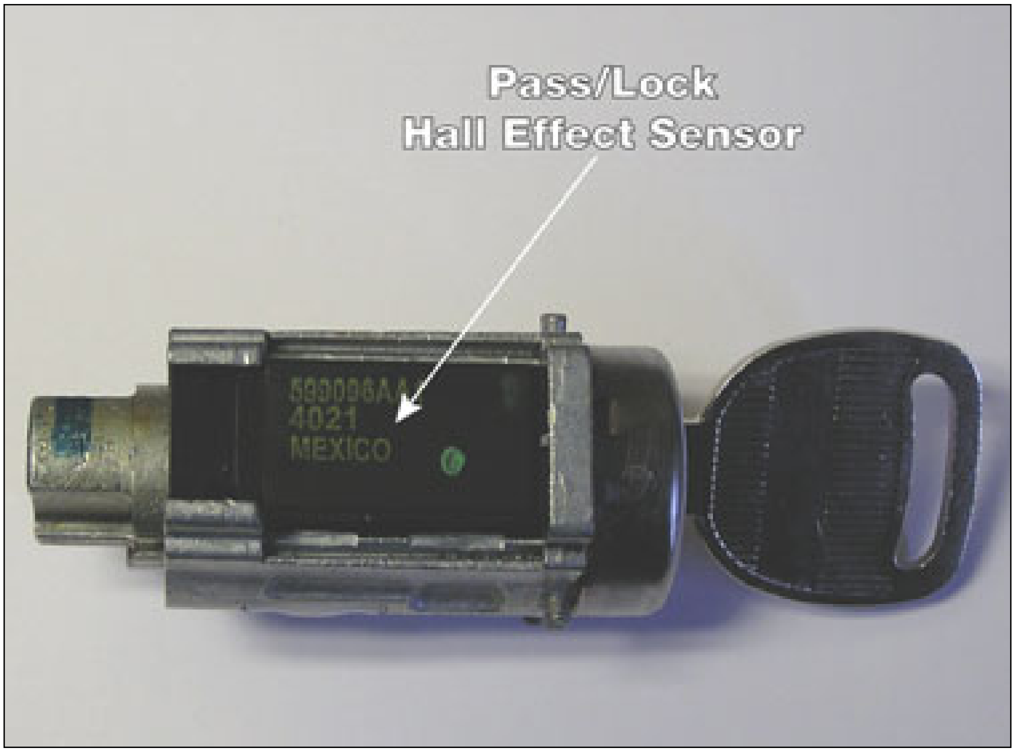
36. Rotate the tool, to place upward pressure on the cylinder retaining lug spring. The retaining lug will be drawn into the cylinder body, allowing the ignition cylinder to be pulled forward by the key.



37. This shows the position of the extraction tool over the retaining lug spring. When the spring is pressed toward the ignition body, the retaining lug will be drawn into the ignition body for easy ignition removal.

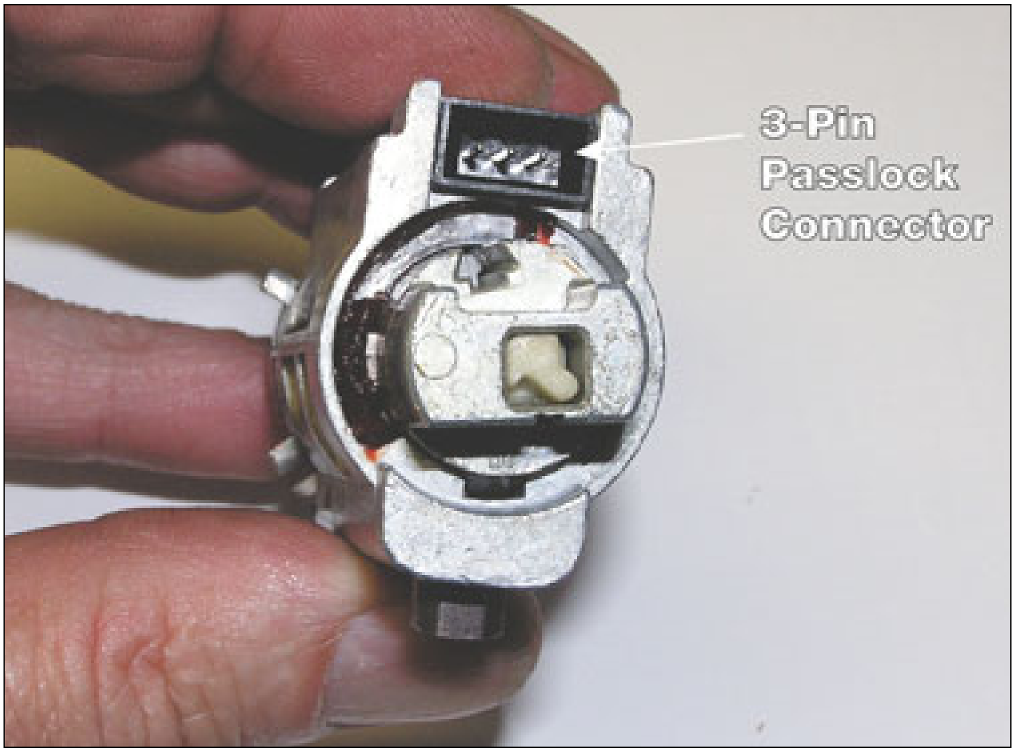


38. Code S868B is read on the side of the ignition body.

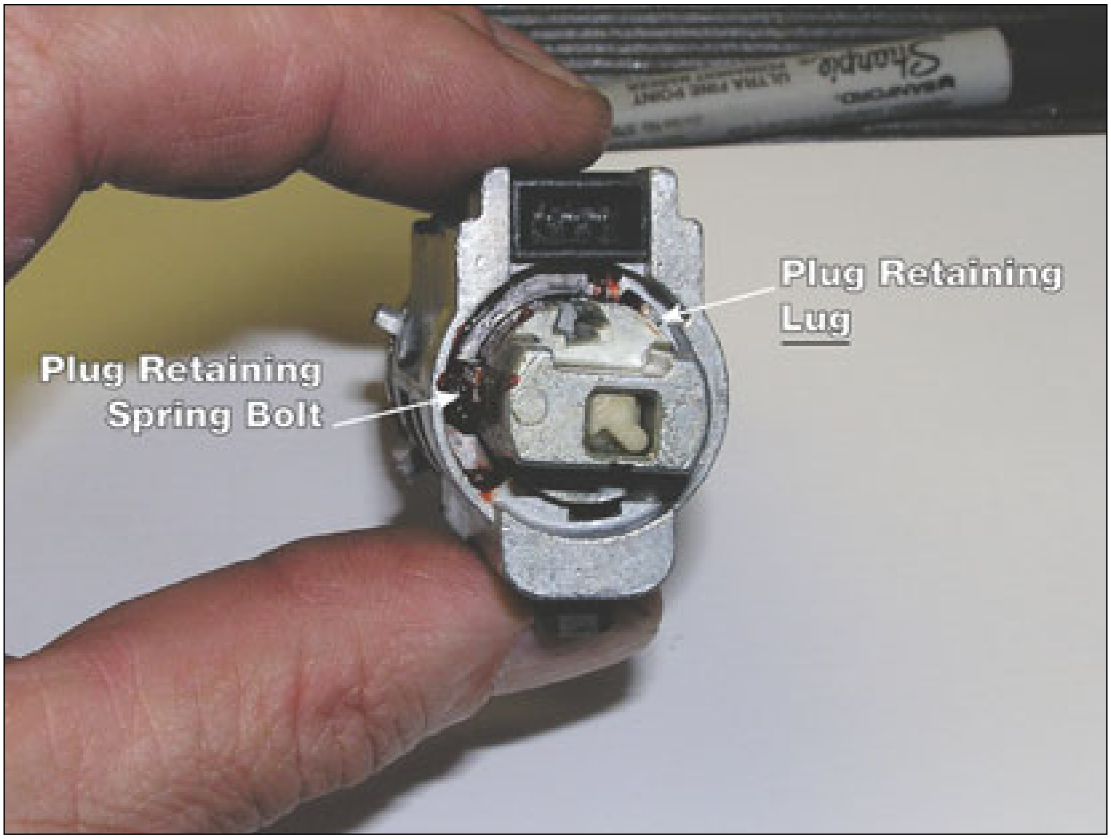


39. This vehicle uses a Pass Lock security sensor on the ignition housing, The sensor uses a Hall-Effect sensor in the lock case to sense the movement of a small magnet in the lock plug. When the magnet passes under the Hall effect sensor, the sensor emits a code string (digital key word) to the engine control module. If the code word is correct, the vehicle will start. If the code word is incorrect, a security light in the dash will flash, indicating that the vehicle is disabled. There are ten possible codes for the Pass Lock device.

If you have installed a new ignition housing, the Pass Lock ignition must be programmed into the vehicle. Do not repeatedly "try" the key, if it does not crank. You will activate a forced wait "anti hunt" sequence. ONE TRY. If the vehicle does not crank, leave the key in the ON/RUN position and observe the security indicator. There will be a delay period of 10 minutes. When the security indicator extinguishes, start the vehicle. If the vehicle does not crank, return to the OFF position for 3 seconds, then back to the ON/RUN position for a second 10-minute wait. When the security indicator extinguishes, turn the ignition to the OFF position for 3 seconds and then back to the ON/RUN position for a third 10-minute wait. When the third 10-minute wait has expired, the security indicator will extinguish. Try the ignition. The vehicle should start. If the auto does not start at this point, you have entered the anti hunt delay. Remove the key and wait 1 hour. You may try the "three 10 minute wait" programming sequence" after the hour delay has been observed. During the third wait period, the security indicator may be constant (not flashing). This is normal.

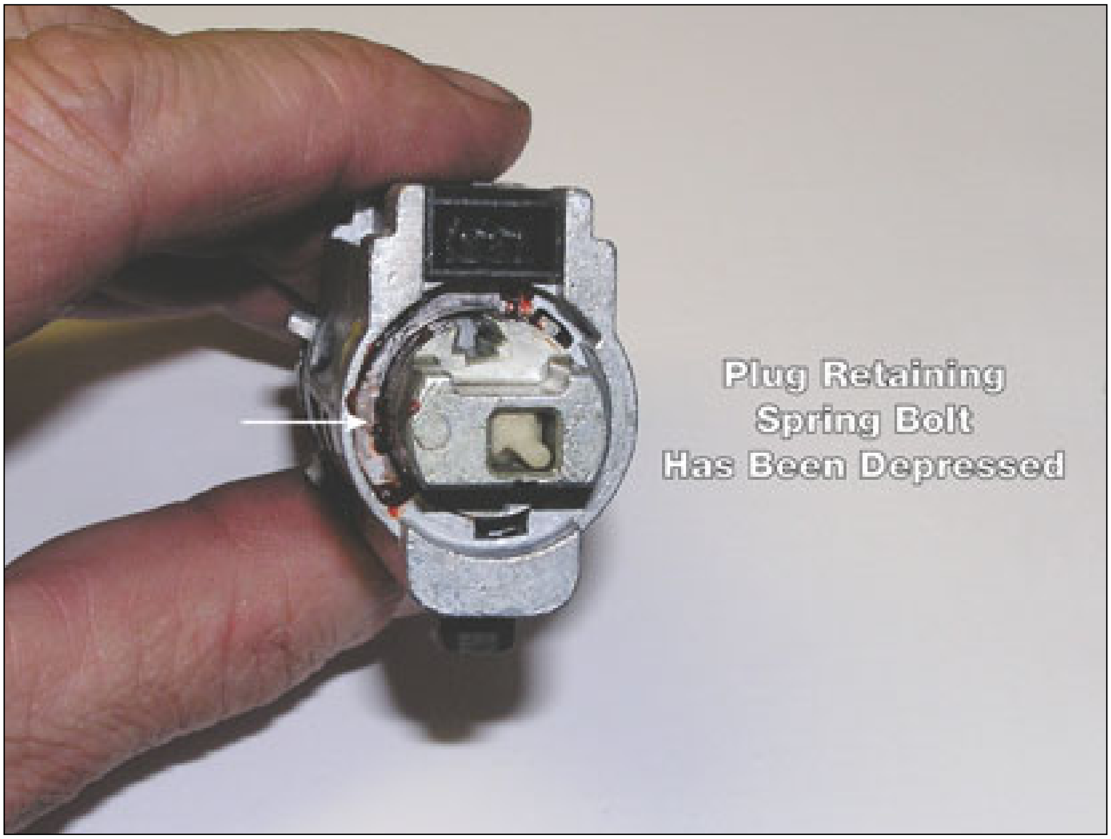


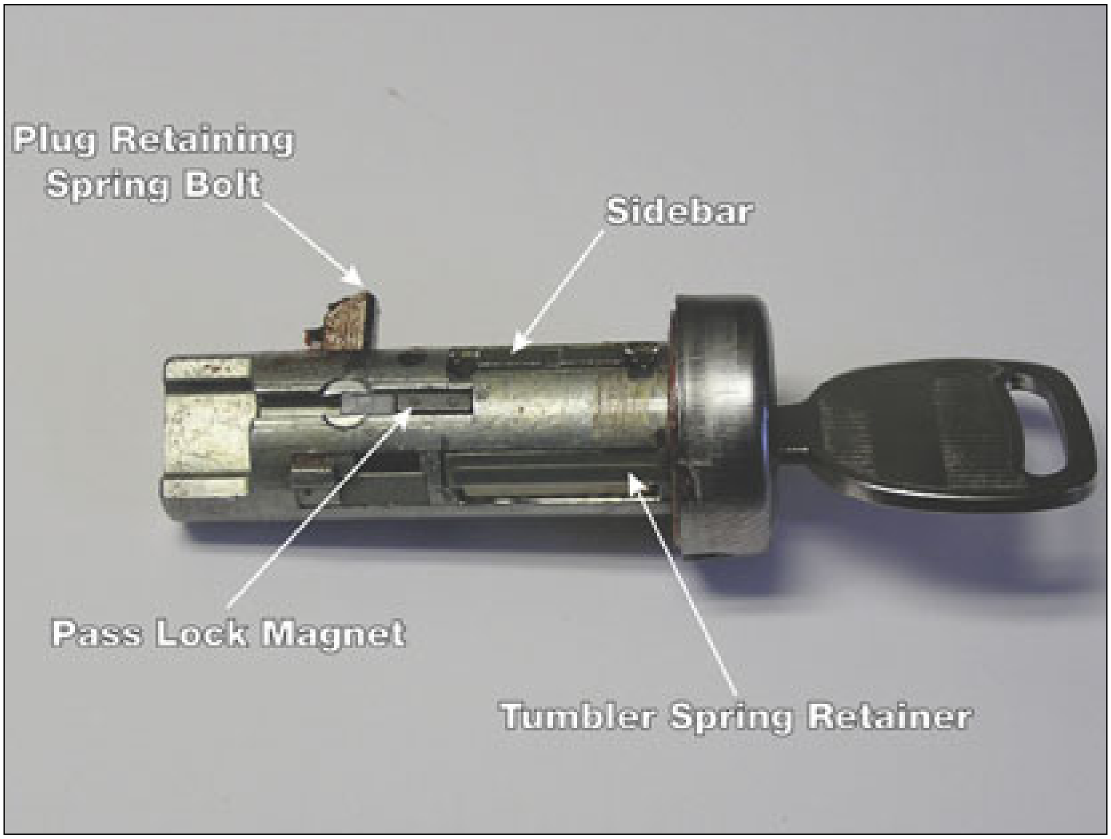
40. A three pin Pass Lock connector is found at the rear of the Pass Lock sensor. As the ignition is installed into the dash housing, the connector will engage a similar connector to complete the Pass Lock circuit.



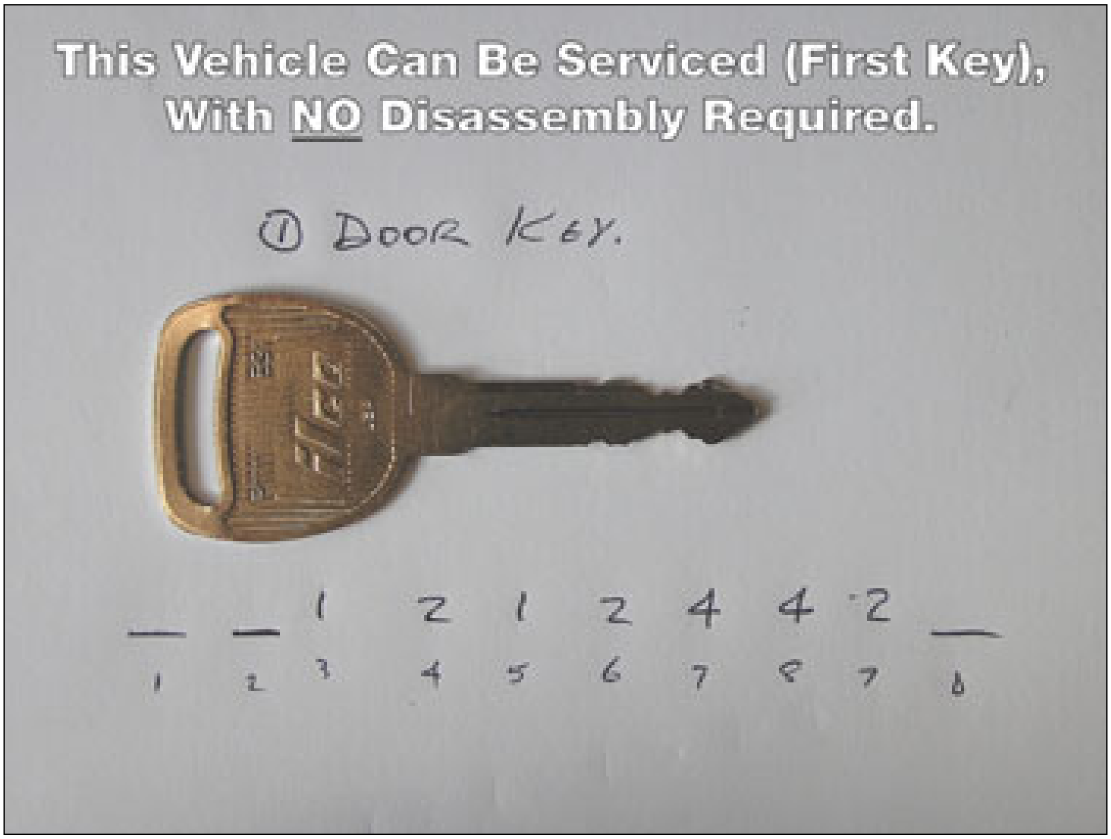
41. To disassemble the ignition cylinder, rotate the ignition plug to align the plug-retaining lug over the keyway in the cylinder body. Depress the plug retaining spring bolt with a small straight screwdriver. (Use a key in the ignition, or pick the ignition using sidebar pressure, to rotate the plug to this position.)

42. When the plug retainer spring bolt is depressed, the plug will be free to slide out the front of the ignition housing.

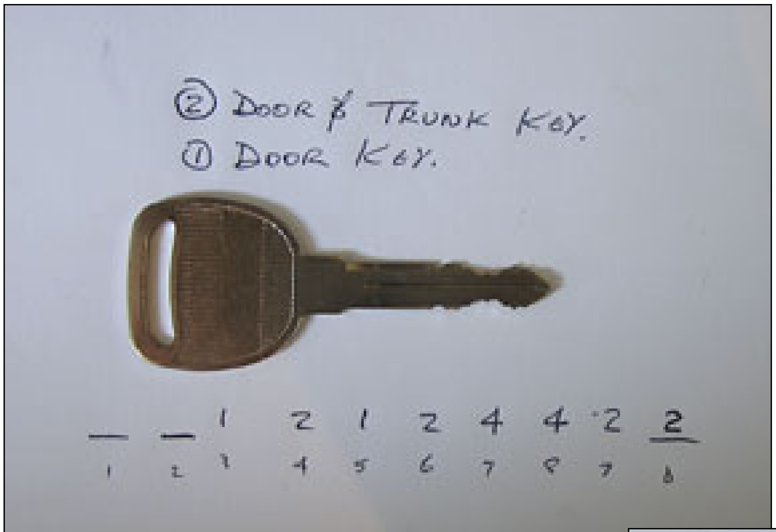




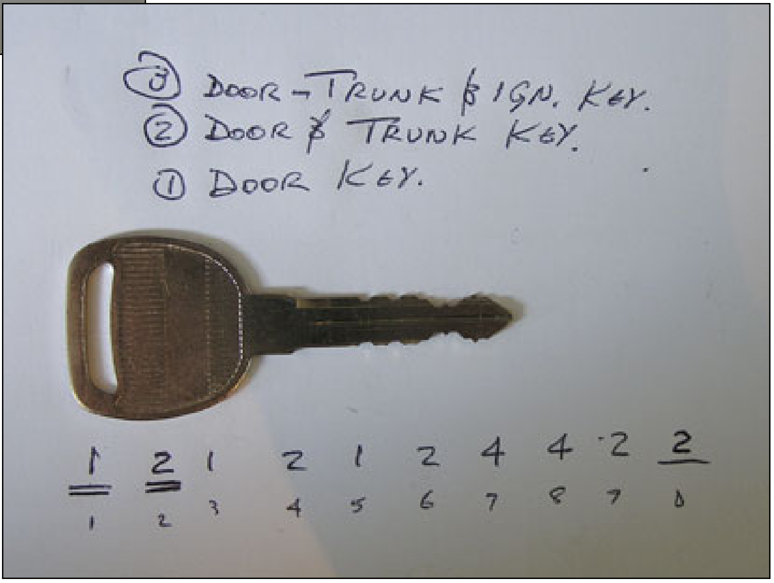
43. With the plug removed, we can see the Pass Lock magnet location in the plug. The plug retaining spring bolt is not retained in the plug. Be careful not to loose it or its' spring when disassembling the ignition. The sidebar is shown. It is slightly below center, on the wide side of the ignition. Further disassembly, for rekeying or servicing a sticking tumbler would require removal of the tumbler spring retainer.


This Vehicle Can Be Serviced (First Key), With NO Disassembly Required.
① DOOR KEY.
_ _ 1 2 1 2 4 4 2 _
1 2 3 4 5 6 7 8 9 10

44. When approaching this vehicle in a "no key" situation, the first step should be to make a door key. It is unnecessary to open the vehicle if you are reading the door cylinder. By "Reading" or disassembly, determine the correct cuts for the door cylinder. A working key will have the correct cuts in positions 3–9.



45. Progress the working door key in the trunk cylinder, to determine the correct cut for position 10. This is a four step progression, at most. As you can see, our #10 cut is a two depth. We now have a key which contains the correct cuts in positions 3–10.



46. Progress the working Door/Trunk key in the ignition to determine the cuts in positions 1 & 2. The MACS (maximum adjacent cut specification) for the GM 10 wafer system is 2 (two). Because of the size of the code series, the completer function of all code programs will return so many possibilities that progression has been found to be faster by this locksmith.

Strattec manufactures the lock cylinders found on this vehicle. They are serviced by keying kit: Strattec 702767.

Service parts are:

Ignition cylinder	703602
Door cylinder	706592
Deck cylinder	703599
Door chrome cap	322114
Deck chrome cap	321314
Dust shutter assy.	599466
Primary Key, Molded	597791

The key making method outlined above applies to all GM 10 wafer equipped vehicles that have wafers 3–9 in the door, 4–10 in the trunk, and 1–9 in the ignition. The option to read the wafers in the keyway may be substituted with use of an EZ reader, Determinator, or Try-Out keys. Wafer Lock Reading, though, remains the faster and more preferred method.

Note: *By observing the positions of the wafers in the various locks, it is possible to recombinate the ignition to "lock out" the old key, while preserving the one key fits all convenience. It is also possible to make a Master and Valet key, by using the tip cut (#10) to perform the Valet function.*

NLAA
1533 Burgundy Parkway
Streamwood, Illinois 60107

STANDARD PRESORT
U.S. POSTAGE
PAID
DAYTONA BEACH, FL
PERMIT NO. 447